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ABSTRACT

This research evaluated the use of open and distance learning in preschool teacher training in Norway, Scotland, and Iceland. A model of preschool teacher education was developed in which students received a 3-year educational program over 4 years while working as kindergarten assistants. The program operated through the collaboration of university and local authorities. Local study groups met once weekly in a regional study room. Four regional groups met six times yearly. The entire student group met six to seven times yearly for direct teaching at the college. Teaching methods used were written communication (computer, study letter, telefax), sound-picture communication (videos, sound tapes), and oral communication (telephone, central meetings). Evaluations were based on interviews with 27 teachers at 2 colleges in Norway, 10 teachers from 1 college in Scotland, and 12 teachers from 1 college in Iceland. Results were categorized in the following areas: (1) challenge of using different teaching methods in different subjects; (2) professional aspects of using distance learning, including the development of responsibility, reflection, problem-solving, and cooperation; (3) the teacher and student role; and (4) flexible teaching in ordinarily organized teacher education. The results indicated that the most important challenge was for teachers and students to bridge the distance between them. It was important for students and teachers to be confident in equipment use and for technical expertise to be readily available. Resulting recommendations for the program related to planning preservice preschool teacher education, the teacher's role or obligations, the cooperation between teachers and students, and professional development. (Contains 15 references.) (KB)

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Martha Lea

ED 448 875

THE USE OF OPEN AND DISTANCE LEARNING IN PRE-SCHOOL TEACHER EDUCATION

Report

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FOREWORD

Pre-school teacher education has to secure professional qualifications for teachers in day care institutions. In Norway pre-school teacher education qualifies one to work with children from 0 to 7 years. There is a great need for pre-school teachers throughout the country. Like in other countries, the ones who want the education do not always have the opportunity to move to a university city. This is the same situation in Iceland, and to some extent in Scotland. Therefore there are developed models of pre-school teacher education, using different means of teaching. In these models a three years education is organised over four years. This gives students the chance to do some parallel work as assistants in kindergartens. Most of the students who have taken part in the ODL based education were assistants who were given the opportunity to become fully trained teachers through the use of ODL and through collaboration between university and local authorities.

To be certain that this decentralised education has the same quality as the education on campus, I have conducted an evaluation of the use of different approaches in different subjects, and the issue of addressing professional development.

An important purpose of the Socrates supported project *"The use of Open and Distance Learning (ODL) in Pre-school Teacher Training"* was to enhance the quality of ODL-courses and to share the experience of such use between the partners and other interested institutions.

The purpose of this research as a part of the Socrates project, is to report evaluations of aspects of ODL in pre-school teacher education. The evaluations are based on interviews with teachers at Northern College, Scotland, Iceland University of Education (Fosturskólí Íslands) , Bergen College, Norway and Stavanger University College, Norway. Northern College has primarily given in-service courses; the other three institutions have used approximately the same model in the pre-service education.

In the first period of the research the questions about the use of different communication means and of the professional aspects in distance education were discussed, and the experiences evaluated. In the second period consequences on the teachers' and students' roles and implications for campus teaching were accounted for. Some of the results are successively published in different articles (ref. literature list).

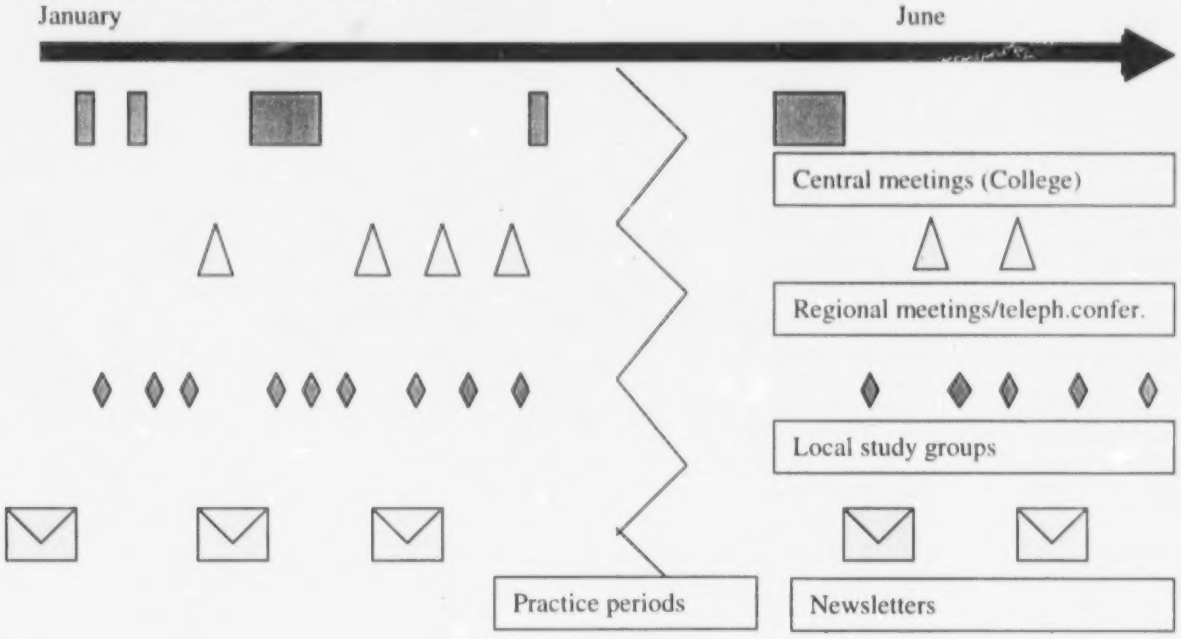
The report also includes recommendations and guidelines.

Martha Lea

THE MODEL OF PRE-SERVICE TEACHER EDUCATION

The model of the pre-service teacher education evaluated was mainly like this:
The 3 years education is spread over 4 years. The students are divides into groups. Local study groups have to meet once a week in a regional study room with ICT equipment. 4 regional groups (12-15 students) meet 6 times a year in the afternoon. The whole student group meets 6-7 times each year to direct teaching at college. The practice is the same as in campus course, 20 full-time weeks spread over the 4 years.

One semester can be demonstrated like this:



THE EVALUATION

The evaluation questions

There are different aspects of interest when you have the responsibility of a decentralised, professional education including distance education, like consequences of using different technical means, how to care for the professionalism or how can students and teachers handle the teaching learning situation in new surroundings.

There were four main questions put forth about this way of organising teacher education:
1) What is the challenge using different flexible teaching means in different subjects?

2) Is the professional aspect of pre-school teacher education secured in decentralised contexts?
3) Are there changes in the teacher- and student role?
4) Will experiences with the decentralised study course have an impact on campus study?

The evaluation method

The evaluation was based on a qualitative research method where interviews were the main material.
Both teachers and students were interviewed. The questions were presented in an interview-guide beforehand. The interviews were recorded and transcribed. The teachers had the possibility to read their own interview.

As Bergen College, Norway used approximately the same model in the distance teacher education; teachers from this college were interviewed as well. Institutions, teachers and students were chosen from practical reasons. They had the experience. 22 students from Stavanger University College were interviewed.

The group of teachers represented the institutions like this:

Bergen College, Norway	9 teachers	=	7 women	+	2 men
Stavanger University College, Norway	18 - " -	=	12 - " -	+	6 - " -
Kennaraháskólí Islands, Iceland	12 - " -	=	9 - " -	+	3 - " -
Northern College, Scotland	10 - " -	=	6 - " -	+	4 - " -
	49 teachers	=	34 women	+	15 men

The respondents represented all subjects in the pre-school teacher education: pedagogy, drama, art and crafts, physical education, music, mathematics, natural science, language, religion and ethics, social science and in-service training.

The answers were systematised and analysed according to the main questions.

WHAT IS THE CHALLENGE USING DIFFERENT FLEXIBLE TEACHING MEANS IN DIFFERENT SUBJECTS?

Introduction

Pre-school teacher education has to secure professional qualifications for teachers in day-care institutions. When a smaller community needs pre-school teachers, and relevant applicants do not have the possibility to move to the college or university site, the answer is distance education. Stavanger University College, Norway, Fosturskólí Íslands (now changed to Kennaraháskólí Íslands or Icelandic University of Education), Iceland and Northern College, Scotland have all given pre-service or in-service courses with the use of flexible teaching means.

These means and the model of the education were approximately the same in these countries, therefore it was possible to put forth the same questions and handle the answers as from one group.

Teaching methods and equipment

The flexible teaching methods used in the education were mainly these:

1) Written communication
- Computer
  - E-mail
  - dataconferencing (First Class)
  - Internet
  - pre-produced programs (multimedia program)
- Study letter
- Telefax

2) Sound -Picture communication
- Videos
  - pre-produced
  - self-produced
- Sound tapes
  - pre-produced
  - self-produced

3) Oral communication
- Telephone
  - individual calls
  - telephone conferences
- Central meetings

1) Written communication

In my research some experience with data conferencing or discussion groups was reported from Northern College, Scotland and Iceland University of Education.

The FirstClass program of communication was used in Scotland, while Iceland used News groups. In later courses in Stavanger, the FirstClass program is used. In FirstClass a defined group has a common "classroom" open for the participants only. It is easy to define files for sub-groups. This possibility to define who is going to communicate with whom in the different files gives the communication a private character, appreciated by students. Other programmes may have some of the same characteristics.

The experience showed that the function of a data conference, discussion group or open forum in a course has to be defined beforehand. The aim must be clear to the participants, and so must the meaning of a conference in the course. It is important to decide how long a conference will last and students' obligations to participation. The openness of the discussion is of importance to some students. May others than the participants have access to read the file? Do the students have the possibility to comment on assessment tasks from other students? What is the responsibility of the tutor? Do the students know what they can expect from the tutor? Is the product or process evaluated, and if so, in which way?

This represents experiences from teachers who have both failed and succeeded. One made his reflections around the use of conferences and said:

> *" The other thing we have learnt, I think, is that we need to make the conferences short-lived and also build in that they have to respond. It is compulsory; we need to make this compulsory. We didn't do that. We like to be open-ended. Both the tutor and the students need to be disciplined to use it."*

The whole setting, the framework of a conference or discussion group has to be planned and be clear for both tutor and students beforehand.

E-mail is an appropriate communication means for rapid and short back-and-forth messages involving theoretical or practical questions or sending of documents.

Pre-produced materiel, special programs or multimedia products are almost missing in the pre-school teacher education. The market for special productions is small in the Nordic countries, and the infrastructure for productions is still missing at most of the colleges.

There are some programs used by teachers in art and crafts, for instance Kid Pix, or in music for training in playing an instrument. Most teachers do not have the time to search for or make experiments with available programmes.

In this model study-letters were used in all subjects. A study-letter is well known as the only communication medium in earlier distance education. We used the study letter as one of several channels. Each teacher defined the use of the study letter in his or her presentation of the subject. There had to be an organic coherence in the study programme.

Pre-produced study letters are used in in-service courses. The use of pre-produced study-letters and special multimedia products may change the teacher's obligations to more administration and counselling. Pre-produced material may standardise the content, and perhaps weaken the dynamism between the teacher and the students.

The most important function of the study letter in this model was to present or to clarify practical, theoretical and didactic questions. A study letter should give the students help in structuring the study material and in being responsible for the self-study part. Not only the content contributes to clarifying questions but also the layout and visual presentation may enhance the understanding.

Telefax was used for short, practical information.

2) Sound-picture communication

In this connection we talk about the use of pre-produced or self produced videos. Video-conferencing equipment was not available in regular use one year ago. Now both Stavanger University College and some local communities have the possibility to video-conferencing.

Pre-produced videos give a coherent demonstration of an issue from the producer's perspective. A teacher needs time to find which material is available, which is relevant to his subject and which place to give the video in his own teaching plans. On the other hand, videos give the possibility to present a process of development in an understandable and compressed form. Videos may also enlarge operations difficult to observe directly, it can be an extension of the visual senses.

As for self-produced videos, teachers are more inclined to let the students produce short videos than to make their own records. It seems that more untrained tutors have a tendency to rely on the written word.
Students may use video-shots to

- give a documentation of assessment tasks or some other work
- record teaching situations to evaluate a teacher's or their own work
- present observations of children

Sound tape recording has been in use for about fifty years. Video recording was, however, more used than sound tape recording. Both pre-produced and self-produced tapes were used in music. Recording of children's language seems to be relevant, in demonstration of communication or language development. Presentation of bird's sounds is an example of relevant tapes used in another field.

During the interviews teachers got the idea that recorded lectures could be listened to whilst driving to and from work.

Sound tape is not as broad a medium as videotapes. It is made for the auditory sense only and needs more concentration. It is, however, easy to use. A video expands both visual and auditory senses, but is, perhaps, more time-consuming.

3) Oral communication

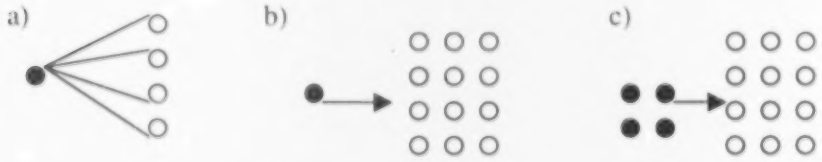
Using the telephone and meeting on campus give the possibility to direct communication, even if the two possibilities have different qualities.

A telephone conference is usually limited in time. These limitations may make the participants become more structured and precise in the discussions. The concentration has to be alert all the time. On the other hand, others may experience this limitation as a hindrance for more reflected communication.

Telephone conferences can be organised in different ways.

a) One teacher connected with several students sitting at their private telephone.
b) One teacher connected with a group of students (different size 2-5 or 12-14)
c) A group of teachers connected to a group of students

Each conference had the same duration of half an hour if needed



If the students have not met, model a) does not enhance the communication between the students. It might become a staccato discussion. For some students it was positive that they did not have to move away from their homes.

The teacher who defined the telephone-conference to be a part of the course, coherent with the rest of the content and teaching activities, was rather satisfied with model b). She made plans beforehand and discussed the content with the students.

In model c) teachers were grouped as well, and could support each other, which they found satisfying.

The students thought that the conferences using model b) gave them more educational support, while the discussions after model c) were more concentrated around practical questions and concrete information.

The reasons why practical questions became prevalent in model c) can be more than one.

- Talking with four teachers in half an hour do not invite to the same profoundness as talking with one in the same period.
- It is important for the distance students to clarify practical frames for the study, as they have to divide their day activities between a job, a family and the study.
- It gives security to get practical information directly. Written information may give possibilities to different interpretations.
- Questions presented in a telephone conference need to be precise. This may become a hindrance for the spontaneous questions students have when discussing in smaller groups.

Teachers have to decide which function the telephone-conference is intended to have, for practical information or more theoretical questions in one subject. The content of the conferences may be based on questions from the students only. Then the responsibility lies with them. It can be a planned part of the teaching programme decided by the teacher. Or another way of using the conference is to decide that both groups have to agree on the chosen issues.

A telephone-conference in itself gives a possibility to clarifying discussions, but it is the use of the situation that secures the result.

In the different colleges, students have been given the possibility of individual telephone calls as well.
Students are anxious not to misuse the possibility; they ask when they really need it. The teachers may decide to receive telephone calls at a certain time.

Spontaneous questions in relation to assessment tasks have been dominant. Sometimes a need for encouragement and understanding is hiding behind the questions. Some teachers are more receptive to such signals than others. How the teachers meet the students is a part of their study environment. Teachers express satisfaction with this form of tutoring because the student's calls show their genuine interests.

Direct communication is possible in the campus teaching periods. Teaching in campus periods is not dependant of using technical means, though some may be used. These periods are compressed and have to be planned in connection with the rest of the course. Each teacher had to be responsible for many lessons in a short time.
How compressed these periods might be, depends on the model. Usually they are rather compressed because the students have to stay away from home and work in the periods. 8-9 lessons/lectures per day in a week or a weekend are not unusual.

Planning compressed and long teaching periods is a challenge for each teacher. First they have to decide which parts of their subject have to be presented on campus, which by study letters or in connection with data- or telephone conferences. Didactic reflections are based on knowledge about aim, content, teaching means and pedagogy preferred. The planning questions are further discussed p.15.

There are also some practical questions connected with these periods. If four teachers have to share 5 days á 8 lessons in addition to campus teaching organised in daily lessons, it is a puzzle to manage to co-ordinate the work for each of them.

Another registered, practical challenge is how to find rooms for teaching in the campus periods. Both these challenges show that the administration system is organised for campus

students and teachers with daily lessons. It is also common with too small space capacity at the colleges for special arrangements.

The compressed study periods at campus had to be planned accurately to become satisfying learning periods.

Even so, both students and teachers are satisfied. The teachers meet motivated students. The students get the security of direct counselling and listening to or spontaneous discussing the teachers' interpretation of theoretical or practical questions.

Conclusion

The most important challenge for teachers and students is to bridge the distance between them. This requires the use of other communication means, another study model and consequently different teaching and learning conditions. It is necessary to underline that teaching resources relevant to the teaching tasks and to the student group are important, even if this is obvious in all teaching. Available technical equipment that works for both students and teachers is a necessity. There are means for direct or indirect communication, some of them well known as study letters or telephones or newer ones like fax, E-mail or other web-based programmes. There are means for presentations or demonstrations like sound tapes or videos. It is important for students as well as teachers to be confident with the use of the equipment, and for the teachers to evaluate the inherent limitations and possibilities of the technical means. In addition technical expertise has to be to hand. Teaching material like literature, videos, CD-roms or sound tapes have to be available.

Courage and creativity is necessary for teachers starting with distance education. Some teachers seem to show great fantasy in utilising and experimenting with equipment and available material. It inspires both colleagues and students. It is understandable if less experienced teachers are more reserved in their teaching, and teachers in creative subjects shows more fantasy. This may not be true. It was not an issue in this research. In a start-up period like this, it is important to give teachers the opportunity to share experiences. The students as well had to "move borders". They called some of their experiences *"to be in the flying zone"*. By this they meant to describe the feeling of losing the ground under their feet. They expressed, however, satisfaction in managing the challenges.

Perhaps some teachers had this feeling as well. Then it might be satisfying to know that managing challenges of this kind strengthens the general qualifications of acting.

THE PROFESSIONAL ASPECT OF USING DISTANCE LEARNING IN PRE-SCHOOL TEACHER EDUCATION

Introduction

The pre-school teacher education has to qualify the students for a profession where, between other qualifications, it is important to develop the ability to communicate with children, parents and colleagues in different institutions. The education programme has to develop professional knowledge and personal qualifications. When a college or university gives a

decentralised pre-school teacher education including distance teaching, the question about the quality of the education is raised: *Is the professional aspect of pre-school teacher education secured in decentralised contexts?*

The questioning of the professional aspect

The professional aspect has to be secured in every subject: through the knowledge presented, through the skills trained and implemented and in attitudes students develop to the study, the subject and the profession. As practice shows the profession situation, this part of the study is rather important. In this model, however, the organisation and content of the practice periods are identical with the campus model. Therefore practice is not included in the research.

As said, the aim of every subject is to develop professional and competent pre-school teachers. In addition, the Norwegian Framework plan for Pre-school Teacher Education points at qualities that are not usually defined in relation to every subject. These qualities are responsibility and self-reliance, ability to reflection, problem solving and communication, and willingness and ability to co-operation. At the same time every teacher in the Norwegian pre-school teacher education has an obligation to evaluate the students' professional skill.

With this background the teachers were asked the following questions about general, professional competence:

1) How will you express the most important aspect of the subject you represent, in the contribution to the teacher training? Why?
2) Is it possible in this study to secure the broad sense of knowledge (=knowledge, skills and attitudes) included in the intentions of your subject?
3) Is it possible to strengthen the students' capability of communication?
4) Is there a possibility of reflection and problem solving in the study?
5) Is there a possibility to develop the students' responsibility?

The first question was presented to give the informants the perspective of the teacher profession.

Conclusively, the teachers were asked if they had sufficient knowledge to evaluate the students' professional qualification, as they have an obligation to.

Knowledge, skills and attitudes

It was easy for the teachers to agree upon the possibilities in the study model to secure the subject. Planning thoroughly, the flexible communication means were not a hindrance to presenting the subjects.

Using the classical terms knowledge, skills and attitudes was meaningful. It forced the respondents to give a more specific definition of the evaluation of professionalism.

Presenting the aspects of knowledge, skills and attitudes separately in the interviews, the answers were more varied. It was easy to answer if the model secured the knowledge part of the study. Students have to present different documentation throughout the study years, and show what they know and understand.

The skills in a subject may both mean didactic skills and practical skills. In this connection we did not really discern between the meanings, but talked mostly about the practical skills. The practical skills in drama are of another kind than the practical skills in language. This model gave great possibilities of developing language skills.

There was some scepticism about developing skills in subjects like drama, physical education, music and natural science. Skills are important when demonstrating understanding in these subjects. All teachers in these subjects did not express the same scepticism. Teachers, who planned training periods in the teaching at campus instead of lecturing, seemed to be less sceptical. A teacher in music with the largest student group, found that playing lessons could be taught by video, and was satisfied with the possibility. In art and crafts the technical means could be utilised. Moreover materials and instruments for self-training can be placed in the study room. Training in skills can therefore be organised both on campus and for the regional study room.

The reflections in relation to the attitude question were often associated with time to direct discussions. There were differences between teachers in seeing the possibility to give time to dialogues in periods on campus. On the other hand the possibility to discussions and working with assignments in groups was pointed at as activities, which created attitudes. It is an open question why only the direct communication was mentioned in this connection.

Nobody resented the use of flexible teaching means, including distance education. The subjects could be taught and learned in satisfying manners.

Developing responsibility

Distance education places demands on students to be responsible for their own study. Most of the students in this research have to be responsible for a family and a job in addition to their studies. To manage this situation they need precise planning and a good follow-up. There were few dropouts in the pre-service courses. One of the courses of 44 students told that 16 children were born during the 4 years; there were no divorces and 1 dropout. Both the answers from the teachers and from the students showed that the students were conscious of their own responsibility, not only for their personal situation and their study, but they had to follow-up obligations to the study group. The members in the regional groups and the smaller study groups gave both mutual personal support and study help to those who fell behind in a period.

Whether it is the study model, a strong motivation for the education, the group obligation or the students' personal situation that foster responsibility is difficult to say. Teachers think, however, that the distance students show more responsibility than campus students do.

Reflection and problem-solving

The ability of problem solving is dependent on the capacity of reflection. Reflection is the analytical and evaluative process, taking place before the solving of a problem. One answer can represent the answers to the question whether the study gave place to reflection:

> *"Yes, to a high degree. The form with letters between the intensive teaching periods, the inspiration to work with questions they are occupied with in connection with their reading and their discussions with us,- - - - -reflection is really one of the fundaments in my subject"* (which was religion and ethics).

The teachers pointed at four reasons that could explain why they found the students so reflected:

- The students had practical experience from kindergarten work, either beforehand or during the study or both.
- The assignments they got in connections with lectures or study letters claimed reflection.
- The study group discussions.
- Theories and questions about human life were relevant to their personal situation.

Perhaps a fifth reason also could be mentioned, both for the responsibility they showed and their reflected solutions to different kind of question. The students were older than average campus students; they had more life experience, which may be important ballast for that kind of study.

Ability to communication and co-operation

The aim of drama activities, art and crafts and music include the ability to use aesthetic forms of expression where communication is an important aspect. It is unnecessary to say that the language education strengthens the communication capability. Communication is also a theme in pedagogy. Whether it is distance or campus education, the ability to communicate is an inherent goal. Communication means more than being able to express oneself; it implies a two-way process to communicate with somebody about something. Co-operation means going a step further, both to communicate and act together in a common situation with common tasks.

The distance education and the model with group activities lead to both communication and co-operation in different ways. The students have common assignment tasks, and have to solve these and thereby they also learn from each other, and learn something about different persons' varied experiences and ways of thinking. They communicate with the teachers through telephone discussions, by video documentation, in written or in face-to-face communication.

These varied possibilities to communicate strengthen the ability to varied communication. Co-operation is a must in the study. In a profession based on human relations all communication forms are relevant. The written form needs more preciseness than oral conversation because the body language is excluded. The students are conscious about the importance their group experiences have for their future work. The students were evaluated to be competent in expressing personal, theoretical and professional points of view.

The evaluation of the students' professional ability

Teachers are cautious in the question of evaluating the students' ability.

In an evaluation of students' professional ability one is near the students' personal sphere in some cases. It is not always clarified which personal elements are included. A departmental group elaborated a document to the Norwegian Ministry of Education (December 1997) regarding the evaluation of professionalism. They pointed at the difficulties in the evaluation process because there is no absolute criteria. You cannot measure the professional qualities, you evaluate them.
However, they proposed some issues for evaluation:

1) *The student shows interest, ability and the will to learn the necessary knowledge and secure practical skills in subjects of theoretical, aesthetic and of a practical kind.*
2) *The student shows ability and the will to plan, manage and evaluate educational work for children, young people or adults in accordance with rules for the education.*
3) *The student shows ability and the will to develop a conscious and reflective attitude both regarding the responsibility of the teacher's role, and her or his own and other's practice, being loyal to common values which society wants to develop further on, through laws and framework plans.*
4) *The student shows ability and the will to recognise what is happening in a group, and creates appropriate situations for care and learning for children, young people and adults.*
5) *The student shows ability and the will to communicate and co-operate with children and young people, teachers, co-students, parents and responsible persons and other grown-ups in the school society/day care institution in a way that shows respect and care for others.*
6) *The student shows ability and the will to evaluate her or his work, and receive and act upon the consequences of counselling in an open and reflective way.*
7) *The student behaves, also outside the study situation, as a responsible, grown-up person who is an ideal to children and youngsters.*

The Department group knows there can be overlapping issues, but the evaluation of the professional aspects has to be a holistic evaluation by a group of tutors and practice teachers. We see, however, that the study model for distance education, included the practice periods, gives the possibility to evaluate the issues put forth.

The study model gives the possibility to

- develop the knowledge, skills and attitudes included in the subjects (issue 1 and 2)
- develop the students' responsibility. They show off this responsibility both in the study (issue 1), in practice (3) and generally (7)
- develop the students' ability to reflection and problem-solving which is demanded when they have to evaluate situations (issue 3) and self-evaluation (issue 6)
- develop the students' ability to communication and co-operation (mainly pointed at in issue 5)
- counselled practice (cared for in the model, but not discussed in this article). This is important for issues 2, 4 and 6.

The tendency is clear. The distance part of the study does not weaken the qualifications, which are important for the future profession.

Conclusion

We cannot say that the study model guarantee for the result. A study model is a framework compared to the dynamism in the teaching and learning situation. The study model clearly gives opportunities for developing the students' professional qualifications for the future work in the education of and dialogues with small children. We cannot say, however, how much of the demonstrated personal qualities like responsibility, ability to reflection and problem-solving or to communication and co-operation is inherent in a mature student group or are developed through good teaching utilising the technical means in the model of distance education.

It is and must be, an achievable goal both to develop and to evaluate the students' professionalism in distance study, even if teachers find it difficult. The didactic considerations in the planning period and throughout the study are important for using the possibilities given in the communication means and the model. The guarantee for the result lies also in the

dynamism in the teaching situation, the commitment to the teaching and learning processes, the unplanned secret of good teaching.

THE TEACHER AND THE STUDENT'S ROLE IN DISTANCE TEACHER TRAINING

Introduction

The teacher's role in distance education is sometimes described as counselling. The teacher is a mentor, whose obligation is to keep the students on track. Sometimes the teacher is described as a facilitator to students' learning. The students are the learners who have to construct their own knowledge at their own pace. These pictures may harmonise with theories of constructivism, with methods like problem-based learning or with a course model where the course material is pre-produced and the progress line is defined.

In this teacher education teachers are responsible for giving students an education where scientific knowledge in different subjects together with didactic and professional knowledge, skills and attitudes can be developed. Students are responsible for their own study work both separately and in groups. As already showed, communication, co-operation and collaboration skills are important in the teacher education.

In an article on support for professional development Jenny Leach (1996, p.101) writes:

> *"Teacher education, in whatever context it takes place, needs to be rooted in a theory of learning as social practice. The pattern of relationships evolved to support "distance" professional development programmes will therefore be critical, and can in turn provide a dynamic model in general for teacher education and change."*

There is a social aspect both in a learning process and in the teacher education, which is important to be conscious of.

In my research I interviewed both teachers and students about their experiences of the respective roles compared to earlier school situations. The answers gave nuances of a dynamic social relationship both between teacher and students, between students and between teachers, relevant to their mutual obligations in the development of the study. Their complementary roles are therefore more complex and subtle than presented in a theoretical description.

As a background of the teachers' work I present a picture of the aim of the pre-school teacher training in the Norwegian framework plan (1995). The plan gives the aim of the teaching and learning process. It is the teacher's obligation to operationalise these aims through their educative work in this model which includes distance learning. The teacher's experiences using this model tell something about the different aspects of their work.

The aim of the pre-school teacher training.

Pre-school teacher training consists of 9 different subjects (p.4), which represent important aspects of the pre-school teachers' work. As you see in the presentation of the model, the subjects are of different characters. We sometimes speak of aesthetical, practical subjects as different from more

theoretical subjects. The "knowledge" part of for example drama is of a different kind to that of pedagogy. Every subject has, however, both theoretical, didactic and practical aspects; the common aim is to qualify the students through knowledge, subject proficiency, didactic, communication and teaching skills. Every teacher is also responsible to develop a professional commitment to the future work, and to enable the students to evaluate and develop their own work in accordance with the parents' values and the values in society.

This holistic perspective of the education of pre-school teacher students for their future work, together with each subject's special character, form the aim and content of the teaching/learning situation. This perspective also includes an obligation to care for the study environment.

Consequently, teachers in teacher training have a broad set of goals, and the teaching situation is also broadly described, committing teachers to plan and evaluate their teaching in a holistic perspective. This means that they have to take into account the students' study environment, the communication possibilities, the special knowledge and skills of the subject, the more general professional qualifications for the students' future work and the values of society.

The teacher's role or obligations

However different teaching aims are in different subjects, however different either campus studies or distance studies are, the teacher's role is to foster students' learning. Therefore one can maintain that the teacher's role in distance education is the same as in campus teaching. In more theoretical descriptions of a teacher's role you see different opinions related to definitions of the nature of learning or kind of knowledge sought. Sometimes you end up with lists of concrete tasks.

In my project I try to avoid drawing theoretical distinctions between the concepts "teacher's role" and "concrete tasks or obligations". I describe some aspects of the teacher's work that they emphasise in the interviews.

The teachers' planning process

There are different aspects in the planning process that have to be carefully considered, the study environment for the students, the organisation in a model and the implications for the different subjects.

The study environment.

When planning a model for campus teaching, the tradition, physical facilities, organisation and administration of the institution constitute the study environment and is often taken for granted. This is not the case for distance studies. Furthermore the Framework plan for pre-school teacher education (1995) imposes an obligation to evaluate the study environment:

> *"The environment for study and learning has a decisive impact on the motivation and attitudes of the students, their studies and what they learn".*

Important differences between the study environments in distance and campus teaching are the opportunities to communicate with teachers and fellow-students face to face, the sometimes scarce access to literature or other study material, and the room for study work either in libraries or in workshops with aesthetic subjects.

In the presented model these aspects were taken care of in different ways. The students had the facilities for communication with teachers, directly in the teaching campus blocks, in the telephone conferences or in a personal telephone call and more indirectly by fax or by mail.

The use of local study rooms, though small, gave students an opportunity to meet regularly. By grouping the students in regional and weekly study groups, mutual consultations, discussions and support had to become a part of the study. The model with the study room, equipment and grouping of students, opened the opportunity for social communication.

These local study rooms were established in agreement with the local community. Some literature and some equipment for music or arts and crafts were placed in the study room. The study rooms could not replicate the quality of campus workshops, but they gave the students a broader study environment than their own kitchen table.

Even then, they had to do a lot of studying in their homes with the family around, perhaps also small children. The teachers indicated awareness of this, and gave rich opportunities to seek contact and ask questions.

The organisational structure

The available technical and economic resources, the category and number of students and the distance to their living area are some of the facts to consider in the planning process. The organisational structure is a result of consideration of both changeable and undisputable frames, and the aims and content of the study.

The organisational structure is a part of the learning environment. Teaching and training must be organised in a coherent way in order to ensure that students, in the next run, are qualified to create a correspondingly coherent learning environment for children entrusted to them. A model for distance education must address this problem.

Every student has to create this coherence in and between their different study activities in communication with the teachers or fellow-students.

In the model described, it is possible for the teacher to link the activities together in a rhythm between direct, campus teaching, telephone conferences, study letters, weekly group activities, self studies and practice. The condition is that the possibilities are used, not only in the separate subjects, but also in coordination between subjects.

In another model, for example with use of video-conferencing, the coherence in the study could be taken care of in another way. Video-conferencing may provide the opportunity to weekly classes.

Planning the different subjects.

In a teacher's work didactic considerations are always part of the planning process. In distance education teachers agree that the planning process is of still greater importance.

Different structure of the course and different communication channels necessitate didactic evaluations of how to work with the content of the subject.

The planning and structuring questions are somehow different from subject to subject. The practical skills expected in aesthetic subjects like physical education and drama, are different

from language skills. In drama and physical activities teachers decided to train practical skills when meeting the students face to face. Skills in drama are of such a personal communicative character that the counselling feedback has to be given immediately. In physical skills it is important that the training is correct and therefore possible to comment, at least in the starting phase. Using video-conferencing, feedback in practical training could be easier in these subjects as well. More theoretical parts of subjects can be taught and learned in the distance part of the study and in the students' self-study part.

In music and art and crafts the self-training was easier. Some material, tools, instruments and videos were placed in the regional study room, and therefore gave the possibility of learning activities.

Distance may lead to uncertainty. The consequence is that information has to be elaborate. A clear presentation of the study or the subject course as a whole is important for the students. A precise understanding of the aim of the study, the content and structure of the subjects, the organisation of the course work and the expectations of the students, facilitate the learning process and gives the students necessary support in their responsibility for their own work.

If a teacher defines his responsibility for teaching reduced to lecturing at campus sessions, teaching becomes a one-way process, and the planning is reduced to a disposition of subject themes. Today this would be characterised as restricted understanding of teaching and learning practice both in campus and distance education.

The reflections the major part of the teachers made about the planning process showed a responsibility for the students' special study conditions, the social side of the learning process and the holistic, professional aspect of the education.

The teaching process

The planning beforehand may also be defined as part of the teaching process as the teaching includes continuous planning and didactic evaluations, but there is a chronological difference. In this model we can divide the teaching process in two elements, the campus blocks and the distance communication. The student evaluation is also part of the teaching process. In this connection, only the evaluation of the students' professional competence is discussed.

The campus blocks of teaching in this model were different from teaching in campus courses. There were 6-7 blocks a year, some in weekends and some during a whole week. These blocks were rather intense with around 8 classes per day, and more lectures per subject in a shorter time than in traditional campus courses.

These intense periods were a pedagogical challenge. Teachers in more theoretical subjects had to provide both good and varied teaching to be sure that the students could absorb the material. They talked about different variations, some changed themes during the lessons of a day; others put in periods of dialogues with the students or used some group discussions.

The students, however, had an opinion that lectures were a guarantee against a second rate education, and never complained about being given too many lectures. It seems that the motivation made the students more receptive than campus students. The teachers therefore had to create different variations in the teaching situation, compared to teaching in campus courses.

The challenge in aesthetic subjects was another. Skill training was important, but not without a theoretical understanding. Some of the skill training necessarily had to be commented face to face. This was most important in drama and physical activities, but also in music and art and crafts teachers had to achieve a delicate balance between training and theory.

The distance communication is a dynamic process, dependant of the function of the communication, of the two parts, teachers and students, but it is also affected by the communication means. Furthermore teachers may respond differently to different channels of communication.

Some of the characteristics of the different communication means are presented.In direct communication participants convey the impression of the whole person, even if the subject matter is strictly theoretical. Video-conferencing gives a more restricted impression of the persons. In telephone conversation you can hear modulations of the voice, but it is synchronous, like face-to-face communication.

Written messages (study letters) or videos ("picture letters") are a-synchronous.

It is impossible shortly to draw a map over the differences in using the various communication possibilities. Teachers' familiarity with the distance communication aids differs and aim of communication varies.

One teacher expressed some reluctance to answer questions by telephone, because "*I cannot see the student, and do not know if I give the relevant answer*". Another was quite confident about telephone calls and said:

> *"- when I get a telephone, I can assess the callers' underlying purpose. I can listen ---does it seem to be difficult, how important is the question? I can counter with another question."*

This has nothing to do with the telephone as an instrument, but with the teacher's communication ability and perhaps personal security as teachers.

This can also be the case with written communication. Written communication has to be more precise, and can be more effective. Written comments to students' works is often one-way and given on the teacher's terms. On the other hand it is, as one remarks, more demanding to elaborate written comments, to be sure it is clear and understandable.

In distance education teachers have to experience it themselves to become aware of the qualities of the various communication aids, and to become fully acquainted with their different potential.

Another side is the function of the communication. The objectives for communicating with students may range from learning to know the students, presenting theories, securing coherence in the study for students, to giving concrete advice or encouraging the students to become autonomous learners. The range of counselling is not unlike campus teaching. It may include theoretical and didactic assignments, mutual questions, oral, written or practical performances.

There are some special aspects pointed out by teachers and students. A characteristic response from teachers is:

"The most challenging problem is that I don't know the students. Therefore it takes time to find out what they really want to know, how they regard the subject, and how I can help them to develop their understanding."

Some teachers, however, maintained that they knew these students better than campus students because they had communicated with them directly or by telephone, by letters or by videos. They also knew where they lived.

In theoretical questions teachers registered students' need for help to structure theories, expressed like this:

"-draw the great lines, give them a map, point out the important differences,---".

The students were glad to get topics for discussions. It enhanced the learning process, made them reflect about connections between theories or between theory and practice. It helped them to build their own structure of the knowledge, internalise it. In these discussions they were also glad to relate their own experiences to theoretical findings, and present some problems to the teachers. This, teachers expressed, made themselves reflect. It could make them revise their own presentations or gave them fresh examples to use.

Collaboration between teachers

The aspect of co-operation or collaboration between teachers was not thought of beforehand. I did not ask in the interviews if they worked together. Reading the answers about the telephone conferences, it struck me, however, that some teamwork between the teachers was important to them. When the study started each teacher had a telephone conference with the regional groups (4) separately. After a year, the teachers (4) decided to sit in a group talking with the students. The use of time was exactly the same for the teachers, but the groups met the teachers together half an hour instead of half an hour each teacher (=2 hours).

The consequence was that the discussions about theoretical questions more or less disappeared. The students felt they could not put forth some broad questions to one teacher. The questions became practical, for example about when to deliver an assessment or which observations to do in practice periods. Teachers maintained that the group-group conference gave them a broader perspective of the students' situation, the whole education programme and taught them to meet some general challenges from each other. This showed a need for collegial support in the teacher group. Usually collaboration between teachers is a private choice. Perhaps a model in distance education should include a setting for teachers' systematic co-operation.

The student's role

All students are learners. When teachers had to characterise the student group they used adjectives like being responsible, reflective and co-operative. It may be both a result of professional aims of the study, the model and organisation of the distance course and the students themselves.

Responsible students

Distance students have to become more self-employed and responsible in their study work, especially in a model with less contact with teachers. Students were told that they have to plan

their own work; they knew the expectations of responsibility in distance education. The model and the information gave necessary support towards more independence.

Pre-planned group-work in the study model represented another expectation of responsibility. Being participants in groups, they had to share responsibility for the group work. They had to contribute in discussions and participate in group-assessment tasks. Both students and teachers gave positive comments on the group work. The students felt they supported each other and learned from each other. They undertook the responsibility and made the activity a part of the learning process.

The whole student group consisted of grown-up women, the majority with a family responsibility and a part-time employment in addition to the study. They had to plan their life in a realistic way in order to manage. They also knew that the distance teacher education was given these years in their region. It was an opportunity they had now, not next year or the nearest years thereafter. There was one dropout in a group of 44 students during 4 years.

We can say that distance education model necessitated student responsibility for the study work, both individually and in a group. This research showed a responsible sample of students, motivated for the education and supported by the study model.

Reflecting students

The professional aim of the pre-school teacher education is to develop the students' ability to analyse concrete teaching situations and make theoretical and practical reflections to handle pedagogic difficulties. This is followed up by teachers in presentations of case studies, topics for discussions, observations, assessment tasks etc.

Teachers emphasise the students' reflective ability, and point at the importance of study groups and regional groups. One of them says:

> *"Moreover, what made reflection possible and made it function, are the study groups. I think it is genial, and the students say so that if they didn't have the groups, the study wouldn't have worked so well."*

The students have their practice beforehand and most of them do some work in kindergarten during the study, and they have family experiences with children; therefore it seems quite obvious that theories also promote reflection over their different experiences at work.

On the other hand the students' experiences, the teachers' themes for discussions and the groups' considerations also make the teachers reflect. One teacher called it a "*two-way-flow*".

Again the characteristics of students being reflective may be based on the practice background of the student group, combined with the teachers' use of the practice situations through the teaching. There is a dynamism in this combination that makes teachers maintain that distance students are more reflective than campus students.

Co-operative students

As already mentioned the use of study groups (3-5 persons) and regional groups (12-15 persons) is a central element in the study model. In other distance models there is a possibility for students to feel isolated both from the institution and from other students.

Teacher students have to face a profession where the ability to communicate and co-operate is important. In the departmental document with proposed issues for evaluation of students' professional ability one issue is presented like this:

> *"The student shows ability and the will to communicate and co-operate with children and young people, teachers, co-students, parents and responsible persons and other grown-ups in the school society/day care institution in a way that shows respect and care for others."*

I have pointed to the importance of the group discussions for the reflective learning process. To have experienced and learned something about group processes for the professional education is important for the future work. When planning the model, the impact of the group processes was not that evident. In the interviews both students and teachers expressed the opinion that a more conscious use of the experiences with processes inside the group could be strengthened, as a part of the study programme for professionalism.

The students appreciated the groups' social support. Some of them had a rather demanding situation. In their private life they were not really students, but housewives or mothers. The group activities gave them an identity as students. Their co-students were in the same situation and could support them in managing difficult periods, inspire them and, as they said, *"get them back on track"*.

The students' participation in group activities enhances both the social, the theoretical and practical understanding. The students become aware of social processes, personal diversities and the importance of mutual responsibility. This group obligation, pre-scribed in the model, becomes part of the students' professional development and at the same time hinders a feeling of isolation in the study.

The practice-student role

As the practice in day-care institutions is organised like practice in campus education, it is not discussed in this research work. I find it necessary, however, briefly to point out students' experiences of becoming students in the school or kindergarten. Most of them have been engaged as assistants with a defined responsibility both for practical work and care situations with children.

Meeting a pre-school teacher in another day-care institution who has to counsel them into another role is a shock to some of them. They have to revise earlier opinions, to give theoretical reasons for their thinking of what is good practice, and get another identity in handling daily situations. This process of facing other ways of doing things, being forced to take theoretical views into account and change identification model may become both demanding and painful.
This may also be regarded as part of developing social competence and a more conscious comprehension of the future pre-school teacher role.

Their former experiences may therefore be a positive element in the theory learning process, but demanding when they have to change perspective and role in the practice periods.

The "dialogue" between teachers and students

Some of the answers revealed a two-way communication between teachers and students, important to both sides. Teachers expressed the opinion that the students were more motivated and committed in the study than campus students. One puts it like this:

> *"They come with an enormous engagement. They want to do everything. They are superb and positive about our ways of teaching and presentations..."*

Another characterise the students like this:

> *" I find that distance learning students give a much higher commitment to the quality of the course because they have had to prioritise in a way that students who come on a full-time programme don't have to."*

The commitment seems to be interpreted as a result of the opportunity to get an education.

On the other hand, the students characterise the teachers as "*very engaged*". Then you can see, both groups characterised the other group as "committed" or "engaged".

The teachers themselves expressed scepticisms about the distance part beforehand. After some time, however, they found the distance teaching education both interesting and exciting, and said this was because they met an interested student group.

When they have to characterise the social interaction, teachers and students point to the same traits. One student says:

> *"They haven't been so "from above and down", they have been more for us---they are more on our team---"*

Another puts it like this:

> *"We get acquainted with them, better than in another school, there is something with the contact".*

The equality between the teacher and the student is described through words like: "*dialogue-partner*", "*colleague*", "*having respect for the process going on out there*". One teacher is conscious of the more equal status, but also her own position:

> *"I am less of a "mother" and I get much less "miss", ---I am treated more as a colleague, --- this is a challenge in my role. I shall also be more clear-cut and I shall have a hand to give, --- and I shall have made reflections over where they are, professionally, theoretically and personally".*

Behind this experience of more equality between students and teachers, is perhaps the fact that there is less age difference between the groups, and that the students have more life and work experience than campus students. But the reason may also be that distance teaching means more counselling. Many teachers point at this. One teacher says that you have to use the whole range from being an instructor and guide to a counsellor. That is from being one who knows to one who observes and gives help to self-help. She has to change from the one position to the other depending on the groups' questions or problems. "*I adjust my role to the group, change my attitude in accordance with the teaching situation*", she says.

The lecturing position is "I know and I shall tell you all". The counselling position is more like "Perhaps I can help you personally with finding an answer to your question". In some ways the distance students, individually and in group, then get a closer relationship to the teacher than campus students do.

A professional teacher has to use his scientific knowledge, but, to a greater extent his social and communicative ability. Teachers still have the responsibility to enhance the students' learning, but the dynamism between the two sides changes, and this affects both parts in a positive way.

Conclusion

In this research the experiences referred to are related to the model and organisation of the education, the aim of the study and the relevant teachers and students. There are, however, some points of special interest.

Carl Holmberg, a Swedish researcher (1998 p. 73) says about the teacher's role in distance education:

> *"The teacher's main obligation is to council to learning. It is mainly the content in the teacher's tasks which changes, not the role to help the students to gain knowledge."*

However we characterise the teacher's role, it is important to remember that teaching in distance education implies scientific, didactic and social knowledge.

We see that teaching and learning is a social process, as maintained by Leach (1996). The communication between teacher and students is important to both sides, interested students give committed teachers and vice versa. Students' practical experiences challenge teachers, and keep them down to earth, and theoretical theses broaden students' perspectives. Teachers need to be observant and receptive to meet the students' different learning needs.

Alan Tait (1996) refers to a work by Holmberg (1983) where the concept *"guided didactic conversation"* is used. He says:

> *"Amongst other things, Holmberg refers to "conversation-like interaction", and notes that "feelings of personal relation between the teacher and learning parties promote study pleasure"(p.116).*

This seems to be a relevant characteristic of the relationship referred to between students and teachers in learning situations in this project. It is also a guarantee against what Leach refers to as a source of danger. She cites Thorpe (1995,p.176):

> *"The other source of danger when shifting attention from teaching to learning, is that we know as yet too little about how confident independence is achieved, and about the proper role of teaching in that process."*

We see in this project that the importance of social learning process does not only concern the student-teacher relationship. The study groups represent another learning arena where the students give and get personal and learning support. Within the group they develop a sense of mutual personal responsibility. The group discussions enhance the learning process and their

identity as students. At the same time the responsibility and independence that the students develop are important qualifications for their future work.

Whether the teacher is planning, lecturing or counselling, he needs the same range of knowledge, skills and attitudes that he has to develop in the professional qualification process of the student teachers. He needs scientific and didactic knowledge of and skills in his subject both in planning work and for teaching situations. Knowledge about the students' study environment is fundamental in communication processes, and respect for their background of practical knowledge enriches the teaching and facilitates the students' learning. Teaching and learning is not a one-to-one process. The fascination of teaching is that we know some factors of the learning process, but we can never totally predict the result. The dynamism is created here and now, but is dependant of mutual communication.

FLEXIBLE TEACHING IN ORDINARILY ORGANISED TEACHER EDUCATION

Introduction

We meet two dreams about the use of experiences from distance education to campus education. The one dream I have not handled in this research work, is the dream of saving money by use of information and communication technology in campus teaching. It would be a complicated cost analysis related to the model, the equipment available and the teacher resources. There is an article about cost analysis (W.J.Bramble and L.Rao, p. 113 (red. Shoemaker, 1998)). It is interesting briefly to cite some of the conclusive remarks:

> *"Growing evidence from research studies indicates that teaching and learning through distance education can be very successful. Precise cost data and cost effectiveness studies are often lacking. Such precision can be expensive in terms of effort required to gather the detailed cost data which form the basis of the necessary calculations."*

They suggest that administrators should do that analysis.

The other dream is about the influence of distance teaching on campus teaching. Questions about that topic were presented in the interviews to the teachers. The answers were perhaps not that unexpected, having talked about the planning, the organisation and the teaching and learning process. The answers mainly regards the following points:

- The structure of the course
- Theory and practice relevance
- Produced materials

The structure of the course

We have presented a model for the pre-school teacher education. This model prescribes to some extent the way of teaching in the "rhythm" between campus blocks, regional meetings and study letters. To facilitate the self-study for the students it is necessary to plan the whole

course before it starts. In this planning the teachers have to evaluate which teaching themes to present in campus blocks, what part of the subject to present in study letters, how to use the possibilities of counselling the students in groups and individually and what is expected of the students' self-study.

> *"It has been rather useful to have to choose 8-10 points of focus; I have been firmer in the ordinary, near education both as to the content and the form"*, one says.

That means she has become more conscious of the main themes in her subject, and of flexible ways of teaching different aspects.

Teachers say they have started both more structured planning and long term planning. They also see that these plans have to be shared with the students in a clear way. "*Tightly*" and "*Clearly structured*" are adverbs that are used. One teacher has later even structured the whole campus course like the distance course.

Inside this structuring, teachers see that they may use less time to lecturing and systematically present theories or theoretical problems in study letters for discussions in groups. The use of stable groups they have found is rather useful, both because of the learning process, but also because it gives the possibility to counselling. One expresses it like this:

> *"I dare to put more group work on ordinary students, tell them to discuss questions, this I didn't dare to do before, felt there was no room for it, now I do it."*

Another says:

> *"I am envisaging setting up groups of students with sort of discussion type of discussion that they contribute to, and then pulling that together. That is what I am envisaging now. – And that goes over and beyond the lecturing in a sense of opening up discussion and opening up avenues of communication."*

So, teachers see that the campus teaching may become more clearly structured; the teachers may use different ways of teaching by using study letters and use of discussion themes for group work systematically. This gives possibilities of more responsibility to the students, more reflections around theoretical and practical dilemmas and more communication with the students.

Theory and practice relevance

One difference between campus students and distance students is the experiences they have from kindergarten work either beforehand or/and during the study. One puts it like this:

> *Pre-service students sometimes come directly from school or from working in a bank or whatever, and they haven't got the experience. That's what is different, the academic level is supposed to be the same, but the experience they bring can be very different, the richness of the knowledge."*

The comments from the teachers therefore show a greater consciousness about the theory/practice relevance.

A teacher in art and crafts says:

"—I have got many new thoughts about how to give the teaching here, we ought to a greater degree to include in the campus teaching what is happening out in the day-care institution--- because they (distance students) have many "pegs" to hang things on—".

It seems that teachers after experiencing the distance teaching give more thought tying the ordinary practice situations closer to the traditional education. One says that she for the first time has given students some didactic assessment task for the practice period, and she found it rather satisfying.

Teachers also appreciate the examples distance students bring in the academic discussions, examples they later use in campus teaching. Because the experience with the distance course has demonstrated the relevance of the practice perspective, teachers try to imagine how to bring in this perspective in the campus courses. One thinks about bringing children groups to some sort of demonstration work at the college, another supposes that they could make exhibitions in the kindergartens to strengthen the contact and give them a picture of what is going on at college.

As the background of the distance and the campus students is different, it is not possible to give exactly the same theory/practice perspective. The consequence is therefore that teachers try to revise the teaching to develop this perspective in an equivalent way.

Produced material

To secure the communication with the students is a crucial point in flexible, distance teaching. As we see there, it is possible to use written study letters, what could be called "picture letters" (video material) and sound tapes.

In the in-service training in Scotland it is common to design courses in modules, and produce the material, mostly written, beforehand. This is quite a strenuous work, and it will be open for colleagues to use the same material.

To start with the module material, one teacher comments on both the important process under the elaboration of it, and the later use of it:

"So that my own campus teaching is enhanced by the access I have to the readings and the resources and the activities that have been there, because when you are doing a distance learning module, you sit and you order your thoughts and you design the module, it is likely to last for three months. So it's all of a piece, it develops and has themes, and it is argument and you are structured into thinking about the whole module course in a very integrated way. ----I think my own campus teaching has improved dramatically by having that more integrated and holistic approach to the material."

Even if not everybody says that their campus teaching has improved "*dramatically*", teachers say they use the written material, both the modules and the study letters, in the campus teaching. Study letters are not open for colleagues like the practice with module material is. In Norway there are some pre-produced study letters in certain themes. One of the teachers has presented her simpler, low-cost study-letters together with more professional study letters to the students. The students' feedback was that they preferred her letters because they are an organic part of her teaching, adapted to the student group and the progress. This question of when it is relevant to share written study material like study letters or module presentations, I have to leave open. Perhaps the function of study letters in a course design is different from module material, which often constitutes the course.

Some of the reflections are also relevant as to video-productions and sound tapes. Teachers use produced material both in distance education and later in their own campus teaching. While all teachers write study letters, only a few produce videos or sound tapes, though they say it would be useful. Smaller video-shots, which exemplify situations or developing processes, are more used than long videos, the function in the teaching differs and the threshold of quality claims differs.

Conclusion

Teachers say that material produced for distance teaching is used by themselves in campus teaching as well. In this research it regards mainly material produced by themselves, sometimes together with students. There is a difference compared to module productions made for the institution, and later used by colleagues.

We can raise questions about which function different written or other produced material is intended to have in a course. We can also raise questions about which quality is necessary compared to the function and the cost. We can also raise questions about which hindrances there are in the system to develop distance education and campus education in the same direction, and take the best of both into account. Shoemaker (1998, pp 73 --) presents interesting reflections about the importance of faculty attitudes, preparation and development when introducing distance education in traditional organisations.

Meanwhile, teachers use their experiences, revise the teaching and acknowledge that distance education has challenged the campus teaching. The experiences have made them more conscious of a clear structure in the course presentations, more aware of opportunities to have different channels and forms of communication with the students and more convinced that the important theory/practice perspective have to be developed in the teaching. Then the change is on track, the next step is to develop the organisation in the same direction.

SHORT SUMMARY

The reorganising of the pre-school teacher education in the model presented here forms a sort of frame for the later study work. To present a coherent study for the students, the coherence has to be secured both in each subject, but also in the study model and the use of the different means. To take all these aspects into account it is of importance to plan the course as a whole, with each subject on its own conditions, but also as a set of co-ordinated parts.

Distance easily leads to an open interpretation of information, of theoretical questions or practical tasks, if plans and presentations are not clear and precise in their presentation. The result might be insecure students. The preparation of a course, framework, aims, content, the use of teaching means, expected progress, and evaluations of students, all aspects that can be made clear to students diminish insecurity and give students tools to plan their part of it. At the same time the discussions and adjustments during the course are also an important aspect of the teaching/learning situation as in every project.

The different subjects have to be dealt with in a didactic way according to the model and the available communication means. Every teacher has to know the possibilities and limitations of technical means related to his teaching task. Subjects that include training in practical skills

must be given careful consideration as to which parts or disciplines have to be presented in which way.

The model for this teacher training including distance education is of no hindrance to gain professional competence. There are rich possibilities to develop personal qualifications like responsibility, reflection, problem-solving and communicative competence in addition to knowledge both in the teacher/student relationship and furthermore through the processes in the study groups.

A teacher in distance education needs the same professional qualifications that are expected to be developed in the students. His obligation is to help the students to gain knowledge and develop professional competence. The distance taken into account, part of this "help" has to be given through different ways of communication utilising technical aids. Because there are less opportunities for direct lecturing, it is often maintained that teaching in distance education is counselling. The experiences in this model show that the whole range from presenting theories to giving personal support is necessary. Teachers need to be both the one who knows and the one who communicates. Students' practical experiences and their commitment enhance the teaching.

The core of the professional education in addition to the relevant knowledge is the group work and the two-way communication between teachers and students as learning is a social process as well as a cognitive one.

RECOMMENDATIONS

Planning pre-service pre-school teacher education

The planning beforehand of a new course of pre-school teacher education is important.

1) The planning includes having agreement with regional communities about

- where to give student groups necessary regional accommodations which will be their study environment
- which technical means have to be available at the study room
- how to share the cost of the equipment and some material for the students
- who is responsible for maintaining the equipment
- who will give regional, technical assistance to the students
- who is the regional, administrative contact person for the college in practical questions about the co-operation

2) In the further planning this has to be considered

- to clarify the necessary teacher resources

- to take into account the available equipment
- to train both teachers and students in utilising the equipment
- to design a study model as framework to the course where

  a) the aim of the study can be secured

  b) every subject can be taught in accordance with its character

  c) the students' obligations are reasonable according to their study conditions
- to produce necessary information materiel (in paper or on web) about

  a) the content of the education

  b) the prerequisites for the students' application

  c) the study conditions according to departmental claims in the framework plan and the study model

  d) the students' obligations during the course with regard to assessment tasks, group participation and practice.

The teacher's role or obligations

Whether or not you can say that the teacher's role is changed in distance education, it is of importance to look at the consequences for the teacher to work in a model where distance education is included.

- It is necessary to carry out more precise advance planning for the course as a whole to ensure a coherent course of study for the students.
- As the students are grown up persons living in their home areas, it is necessary to be aware of their background and study environment to be sure that we consider their personal situation.
- It is essential to make a didactic evaluation of the available means of communication and relate this to the aim of the subject and the education.
- The practical framework and structure of the course must be made clear to the students to make it easier to plan their part of the responsibility.
- One effect of distance is that students need more support in their work to structure their knowledge and see the relation between theory and practice,
- The study form and the students' background and motivation strengthen a feeling of co-operation and equality between the teachers and the students.

The co-operation between teachers and students

In an article on support for professional development Jenny Leach (1996, p. 101) writes:

"The pattern of relationships evolved to support "distance" professional development programmes will therefore be critical, and can in turn provide a dynamic model in general for teacher education and change."

It is important to be aware of the relationship between the "actors" in the distance education situation.

- There is always reciprocity between teachers and students
- Committed teachers give committed students and vice versa
- The students' experiences can enhance the teachers' more theoretical aspects. It is a two way flow
- The use of regional study groups
  - promotes social learning
  - hinders social isolation of the distance student and gives personal support
  - enhances the learning, understanding and reflection processes
  - makes it easier for the teacher in discussions with the students

  Team-work for involved teachers
  - makes for coherence in the study for the students
  - gives mutual support in and learning of the distance aspect

The professional aspects

Professionalism has to be nurtured throughout the whole course, through developing knowledge, skills and attitudes. The professional attitudes may be briefly described through concepts like commitment, communication and co-operation ability, responsibility and reflection ability.

- The commitment to the study and the aim of it is important to the result and the development to professionalism. It is therefore an aspect to take into account both during the course and the evaluation.
- The ability to communicate is developed through the use of different communication means with teachers and colleague students and in practice situations. Video-conferencing and telephone conferencing demand more precise communication because of short time sequences.
- The group processes provide important experiences with the necessity of co-operation.
- Responsibility is a condition in distance education. Mutual group responsibility is necessary in the work with group assessment tasks.
- The learning and reflection process is strengthened
  - when the students have experience from practice beforehand or parallel with the study
  - through group discussions and sharing of experiences
  - the discussion topics raised by the teachers.

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